CCACC ATG GCT CTG CAG ATC CCC AGC CTC CTC CTC TCA GCT GCT GTG GTG GTG CTG ATG GTG CTG AGC AGC CCA AGG

M A L Q I P S L L L S A A V V V L M V L S S P R

KOZAK CONSENSUS — IA^d β CHAIN SIGNAL PEPTIDE

ACC TTA AGT ATC TCT CAG GCT GTT CAC GCT GCT CAC GCT GAA ATC AAC GAA GCT GGT CGT

T L S I S Q A V H A A H A E I N E A G R

OVA 323-339 PEPTIDE

GCT AGC GGA GGG GGC GGA AGC GGC GGA GGG GGA AAC TCC GAA AGG // AGC CCC ATC ACT GTG GAG TGG

A S G G G G S G G G G N S E R // S P I T V E W

PEPTIDE LINKER — aa1 IA^d β1-β2 DOMAINS — aa189

ACT AGT GGT GGC GGT GGC AGC GGC GGT GGT GGT TCC GGT GGC GGC GGT TCT GGC GGT GGC GGT TCC TCG AGT

T S G G G G S G G G G S G G G G S G G G G S S S

SINGLE CHAIN LINKER

GAA GAC GAC ATT // CCA GGG CCT TTA TGA

E D D I // P G P L •

aa1 — IA^d α CHAIN — STOP

FIG. 1

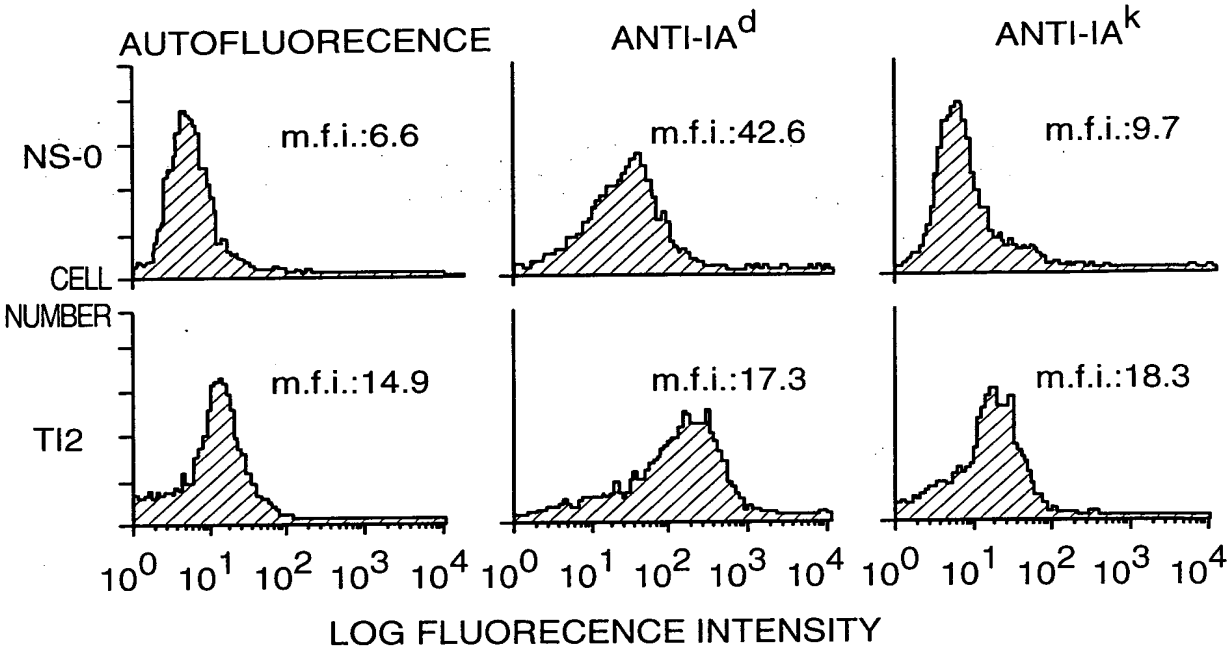


FIG. 2A

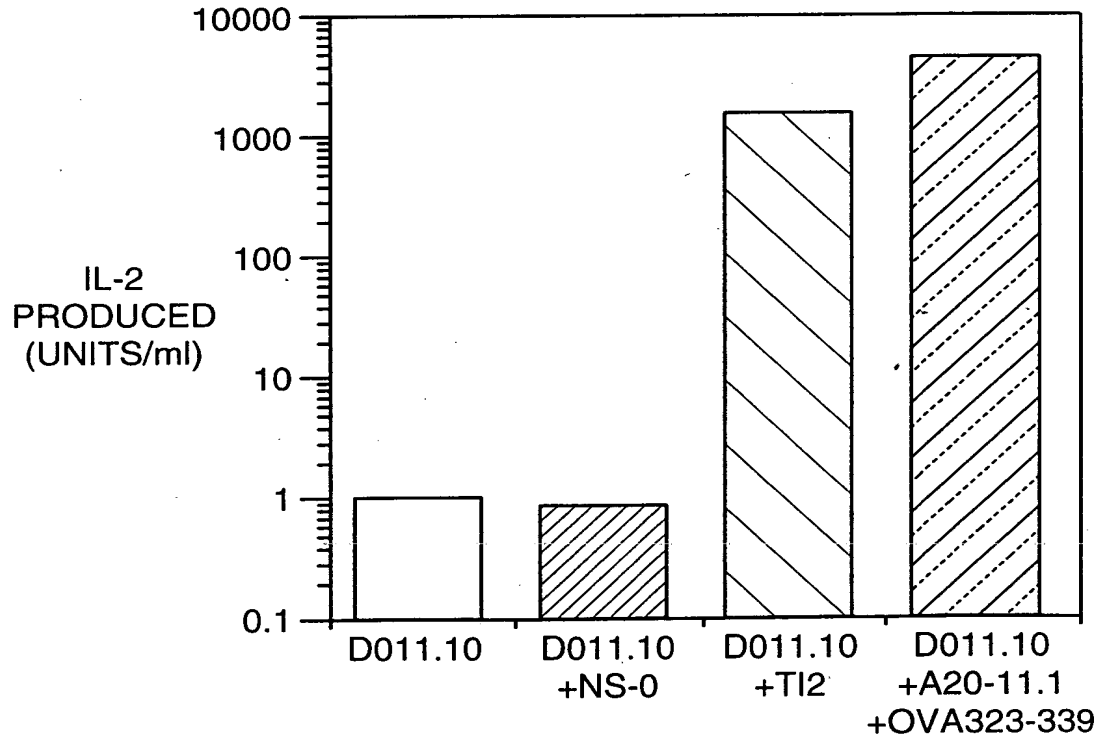


FIG. 2B

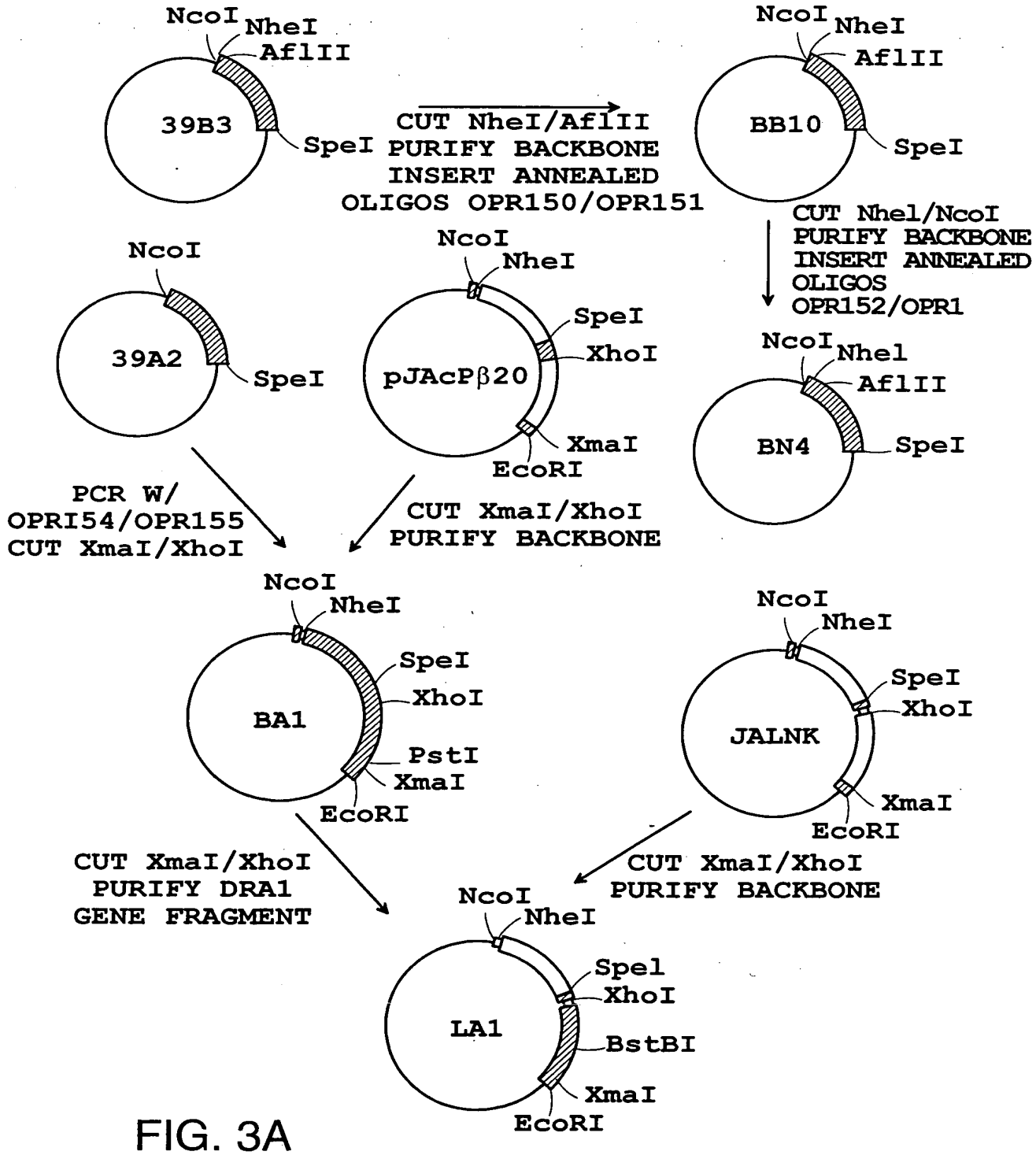


FIG. 3A

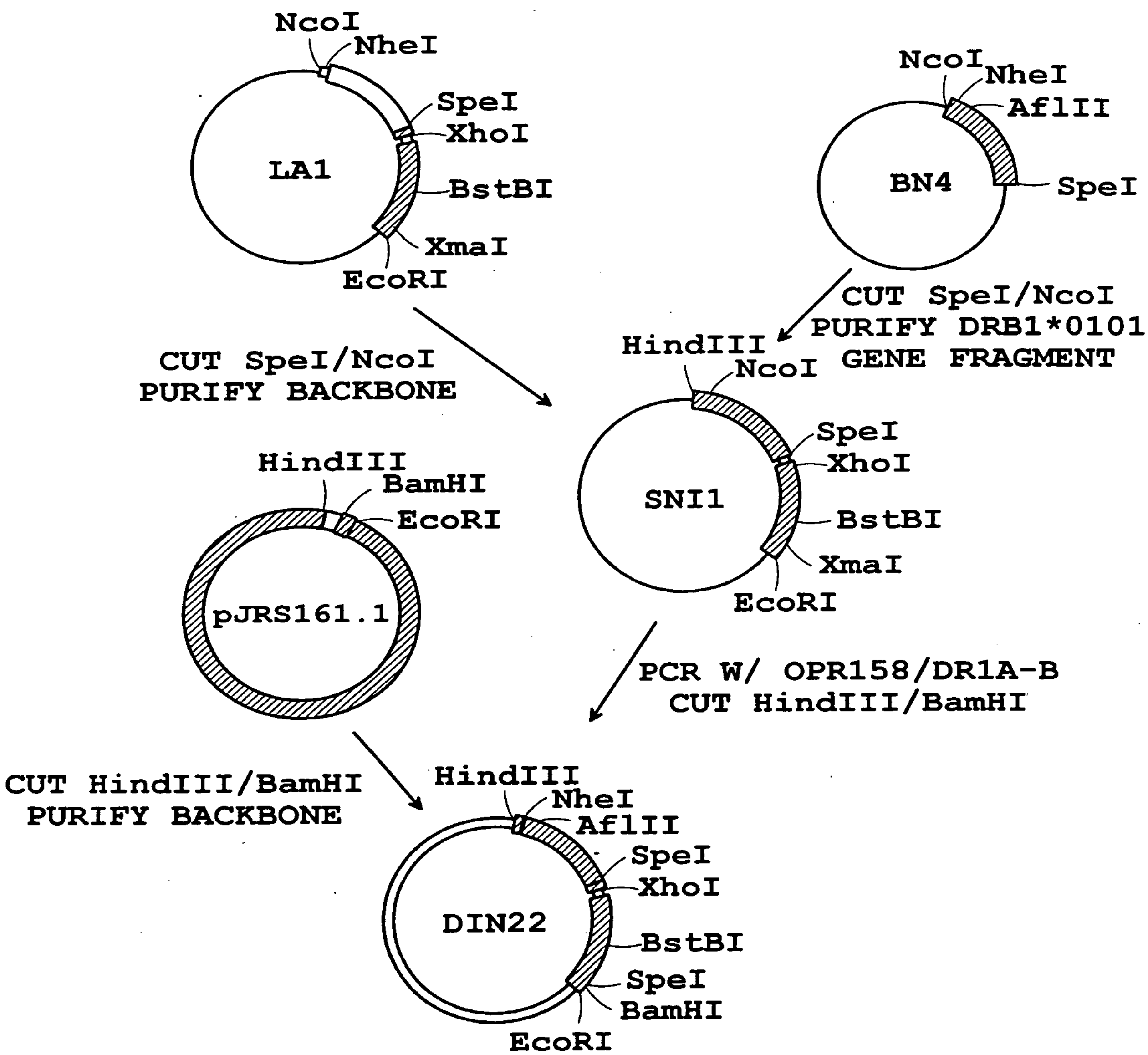


FIG. 3B

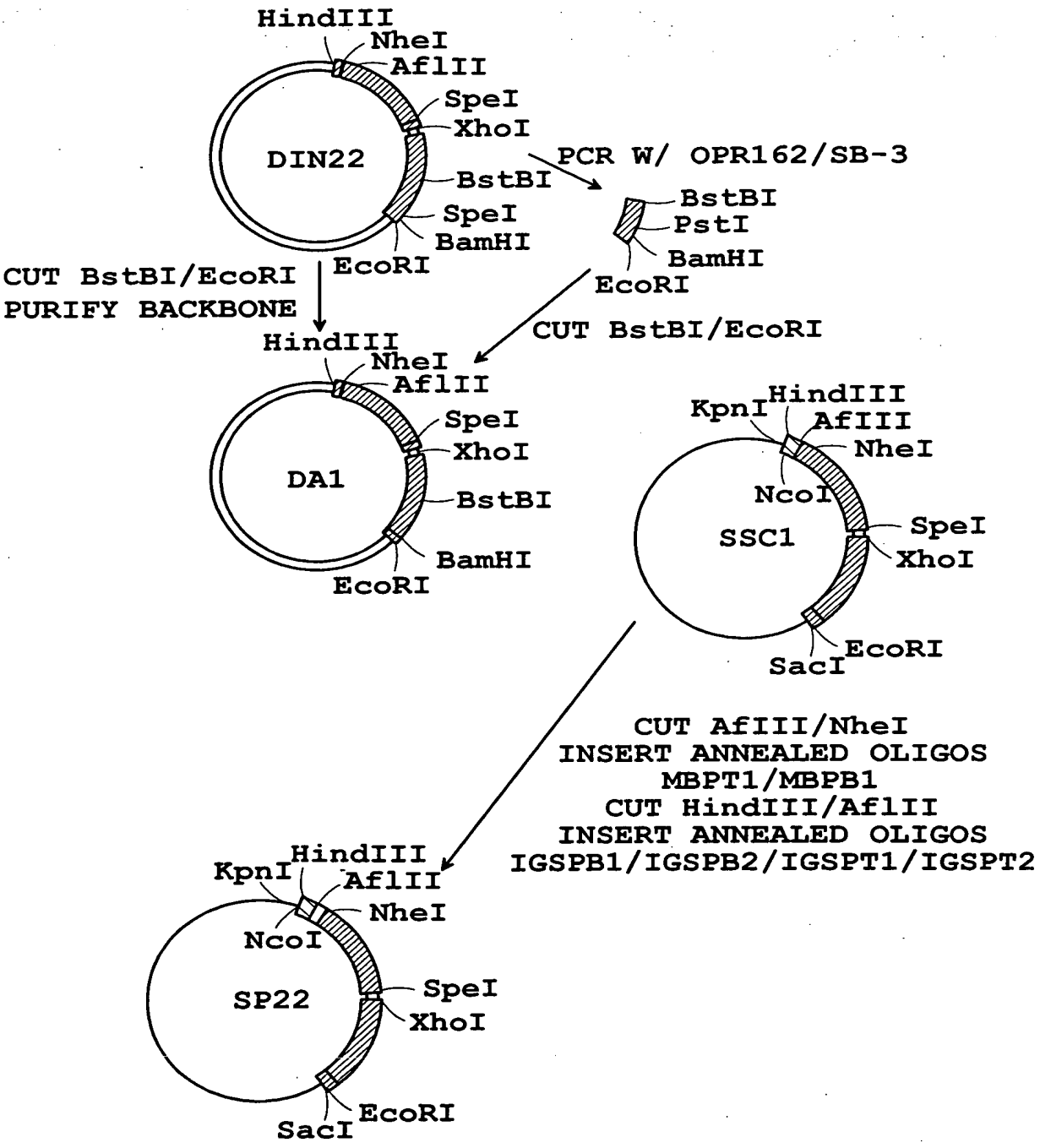


FIG. 3C

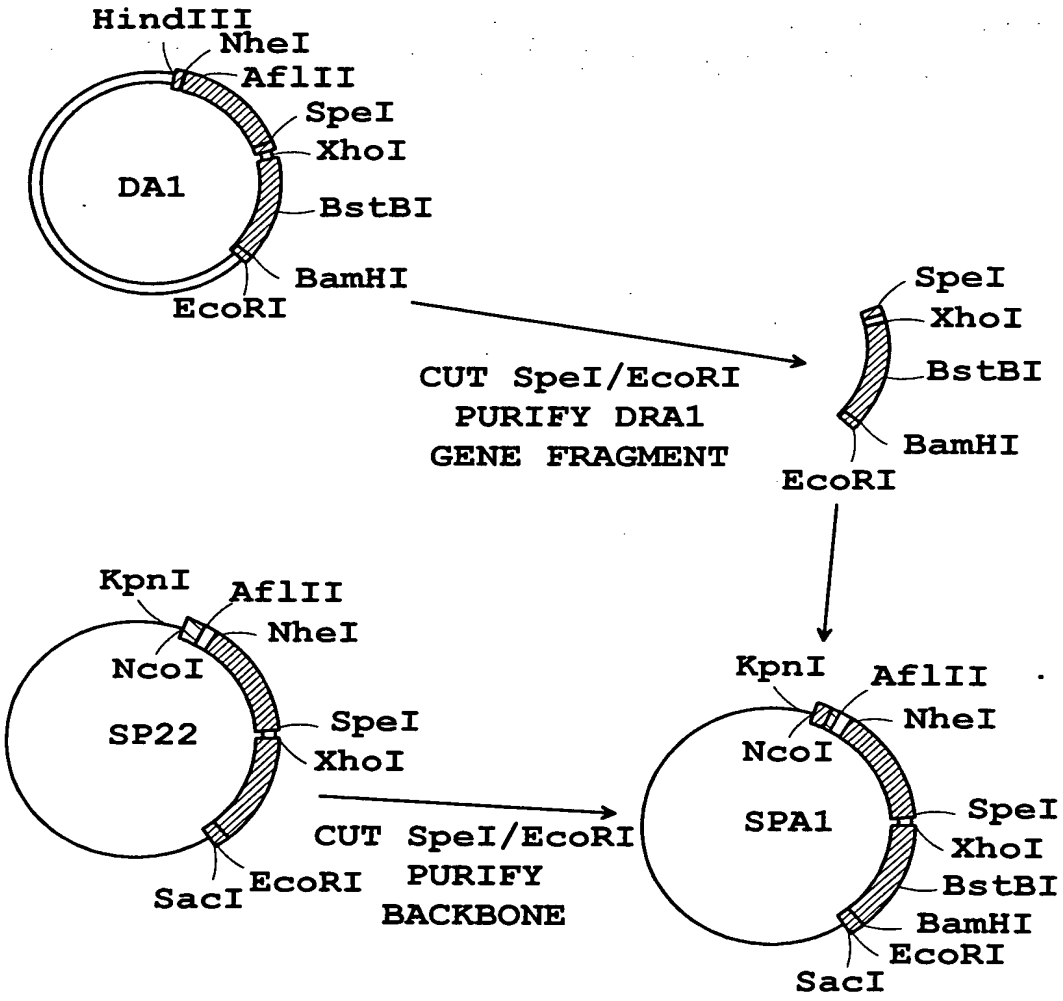


FIG. 3D

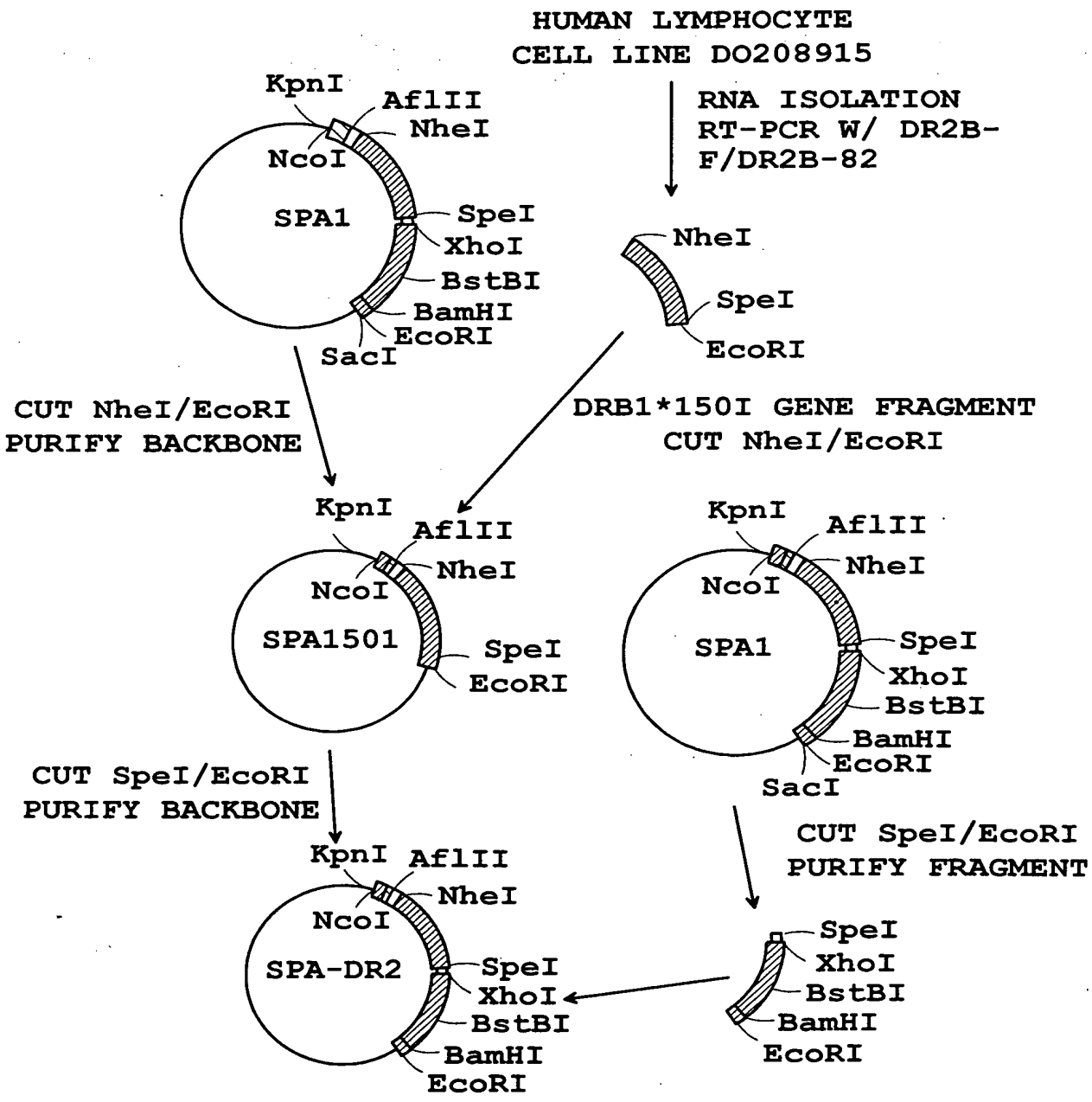


FIG. 3E

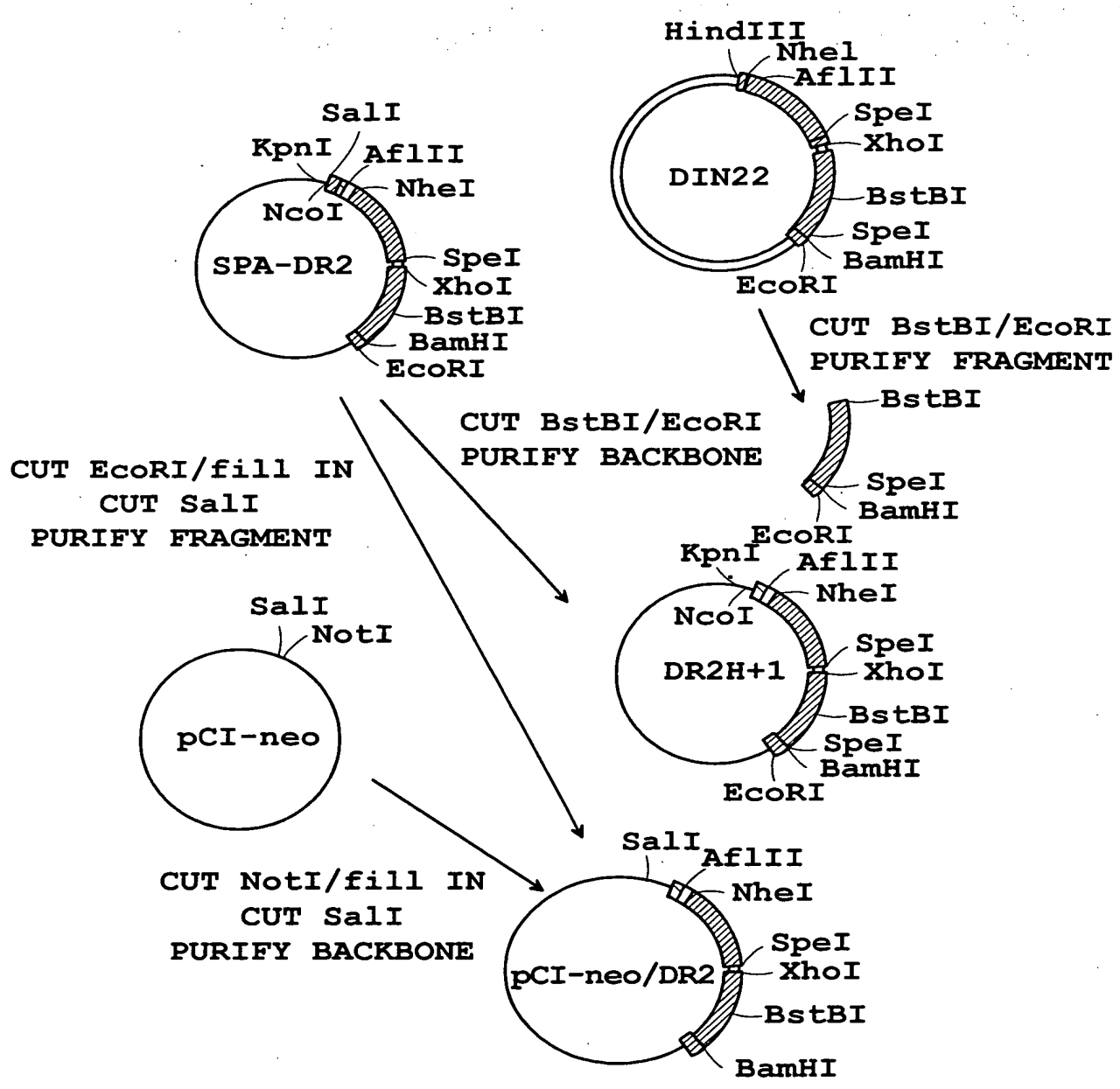


FIG. 3F

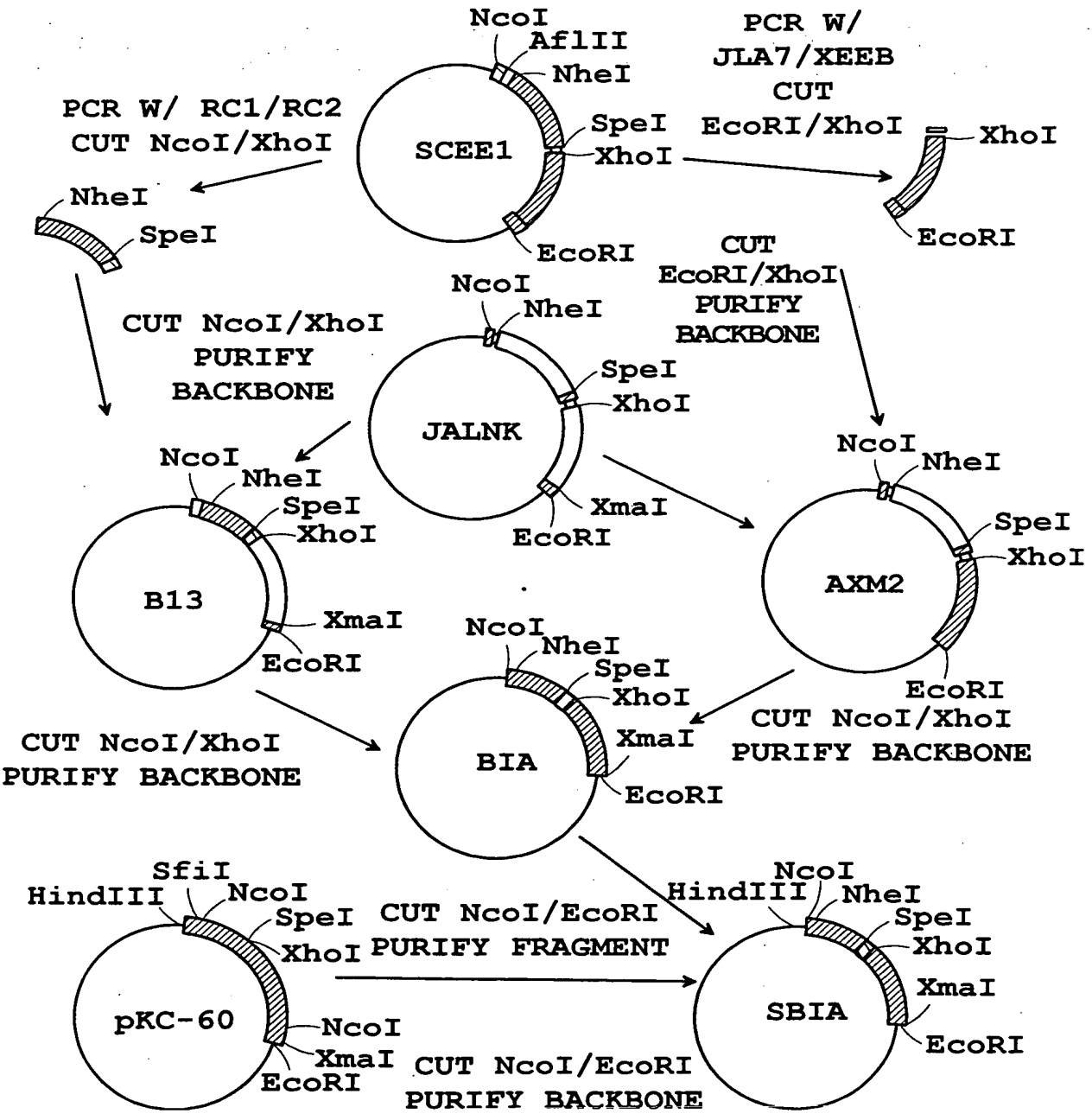


FIG. 3G

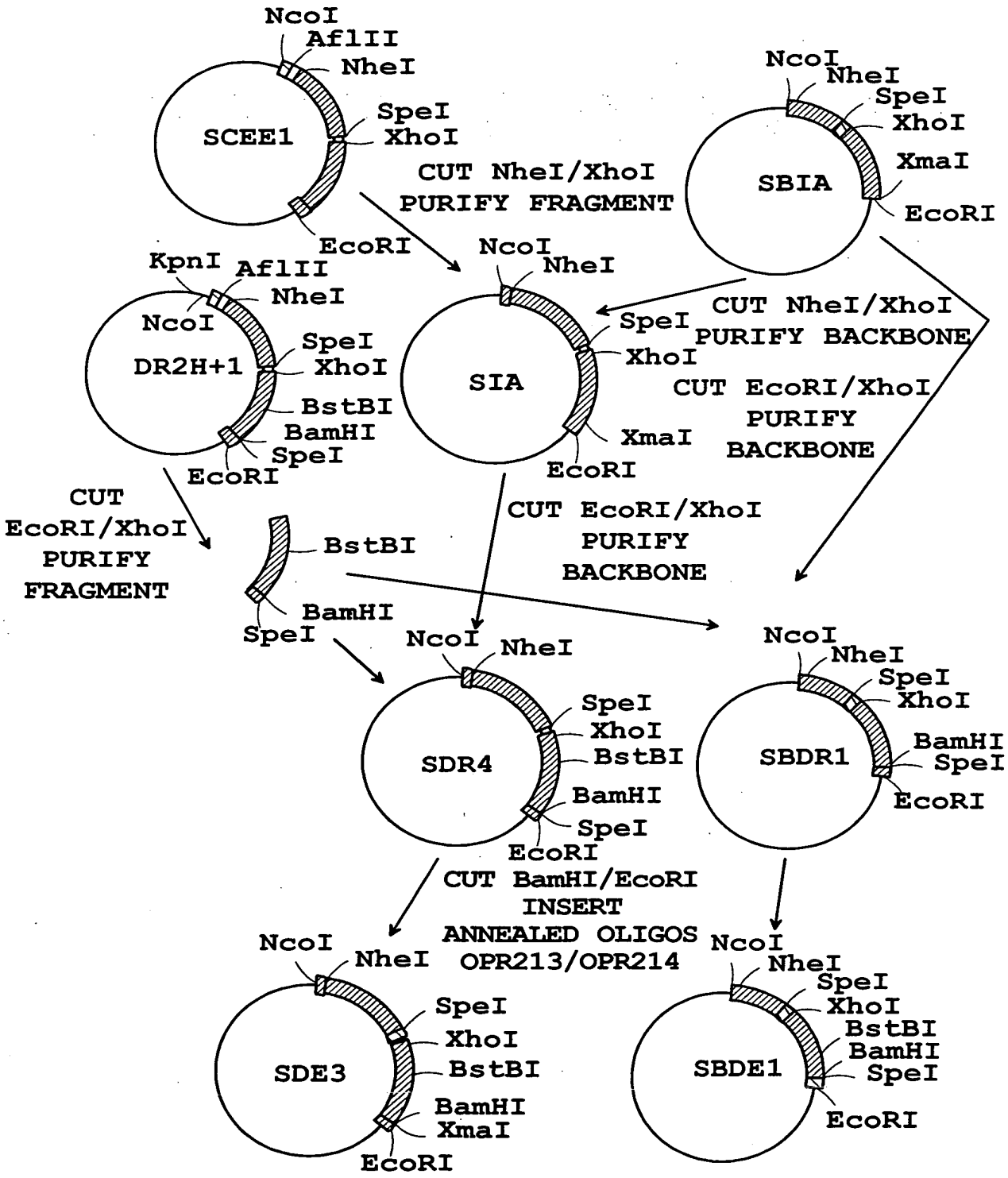


FIG. 3H

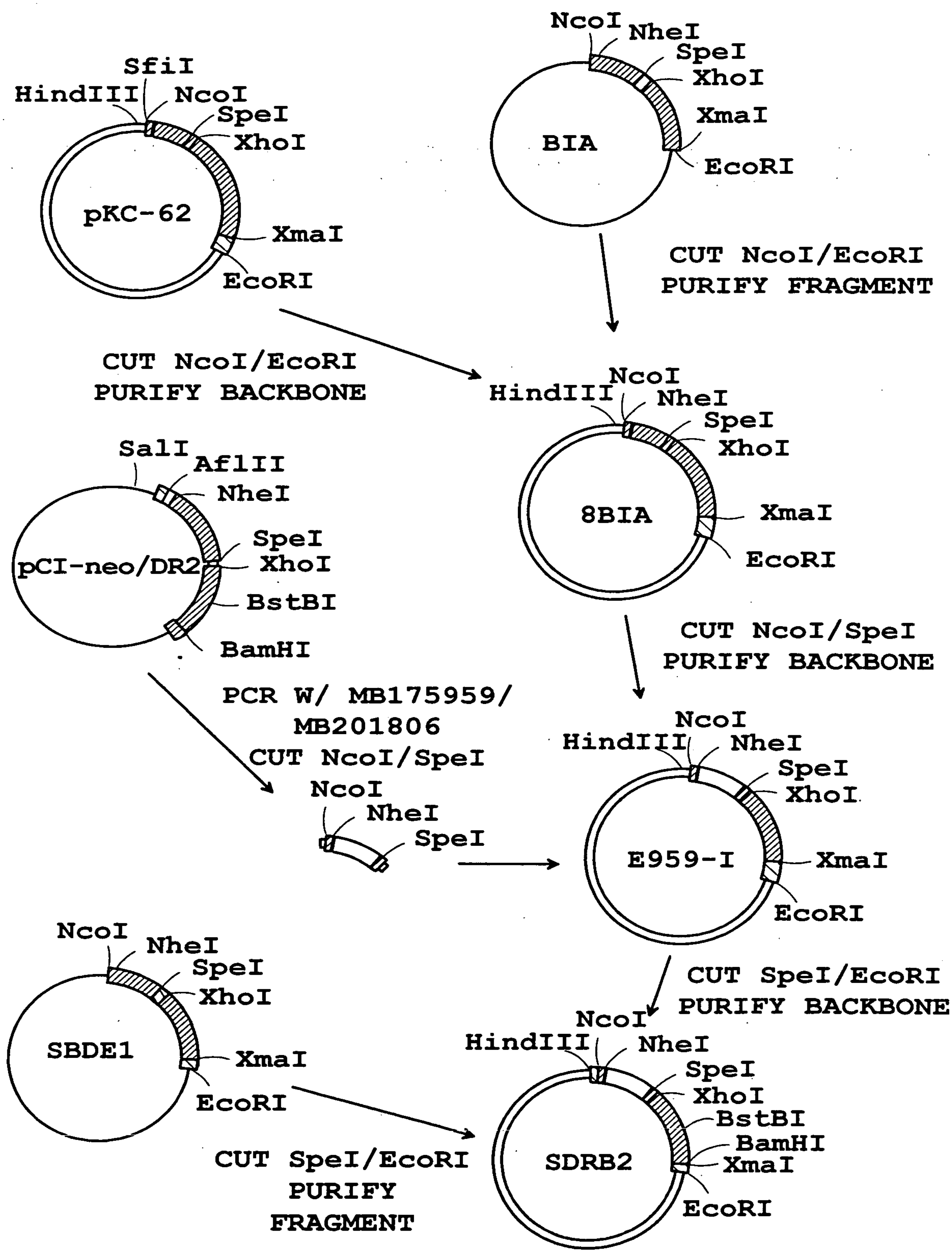


FIG. 3I

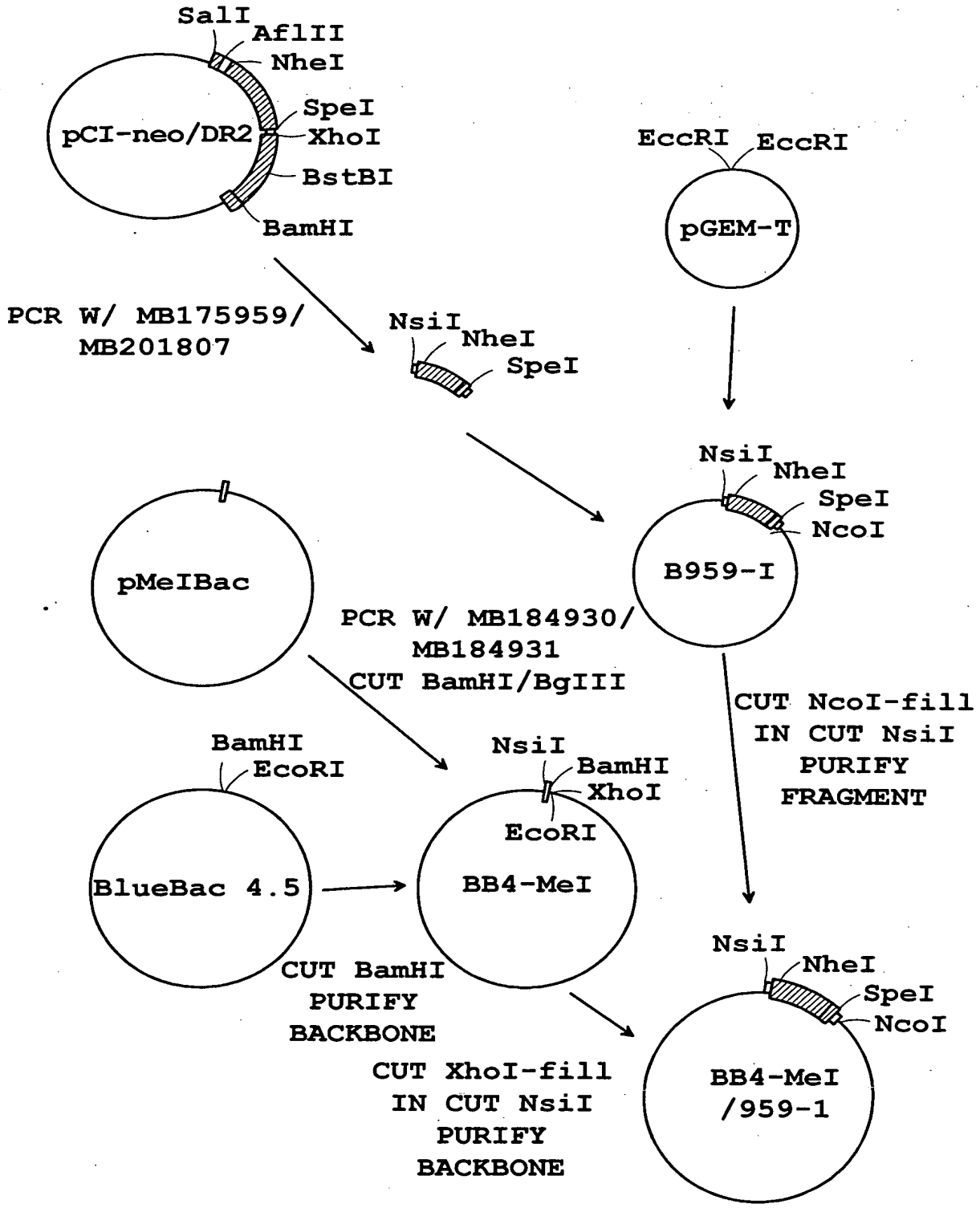


FIG. 3J

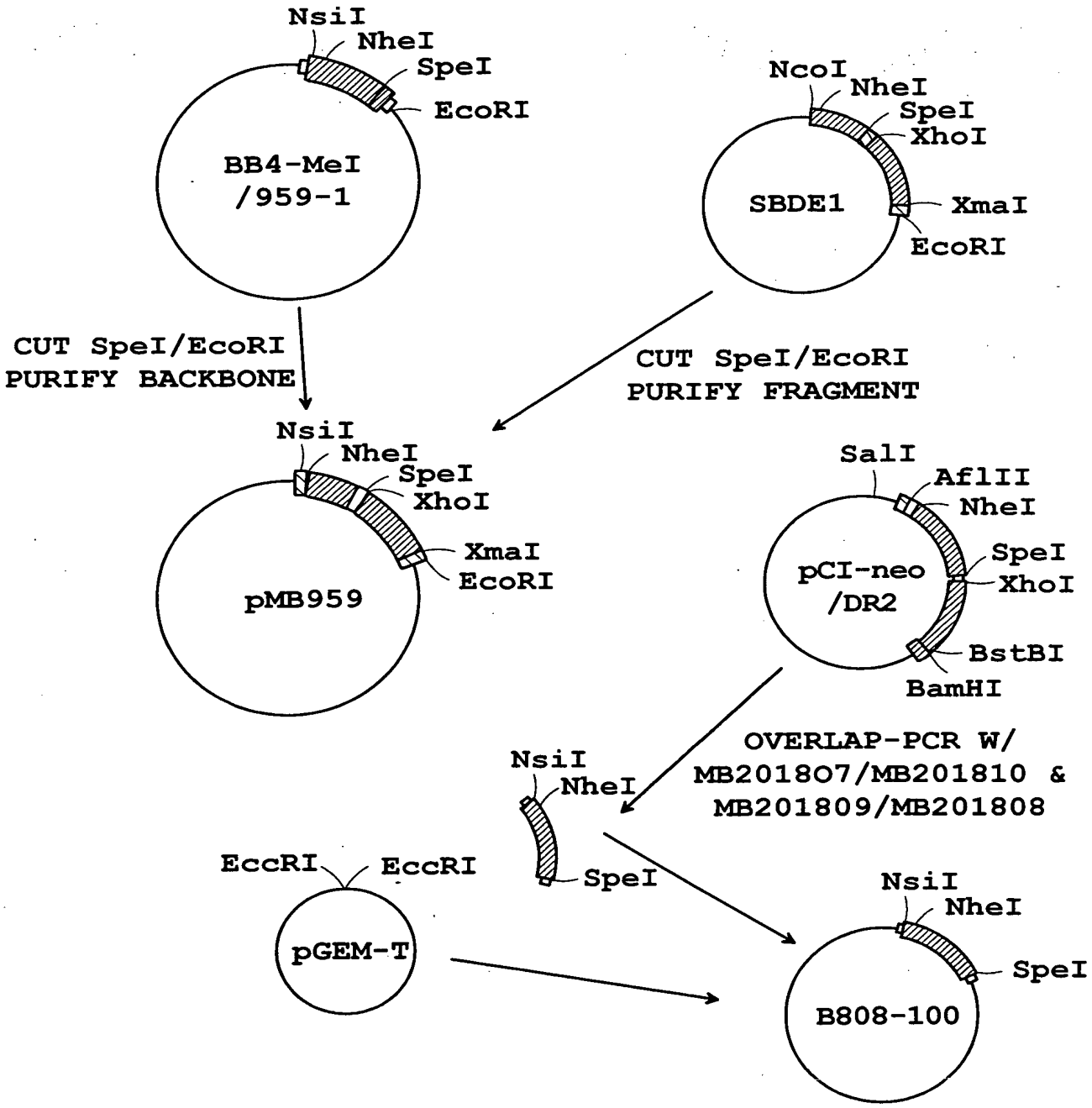


FIG. 3K

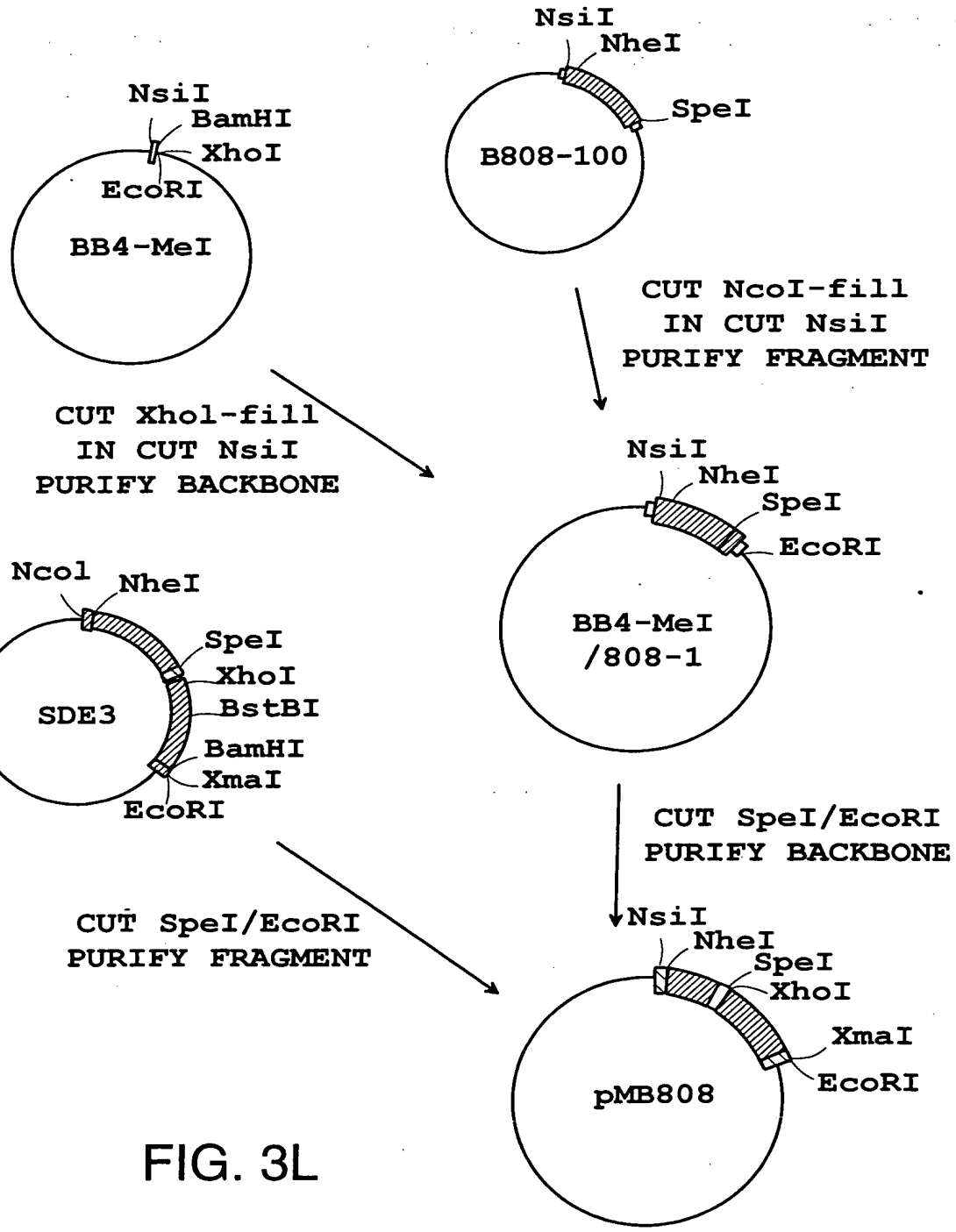


FIG. 3L

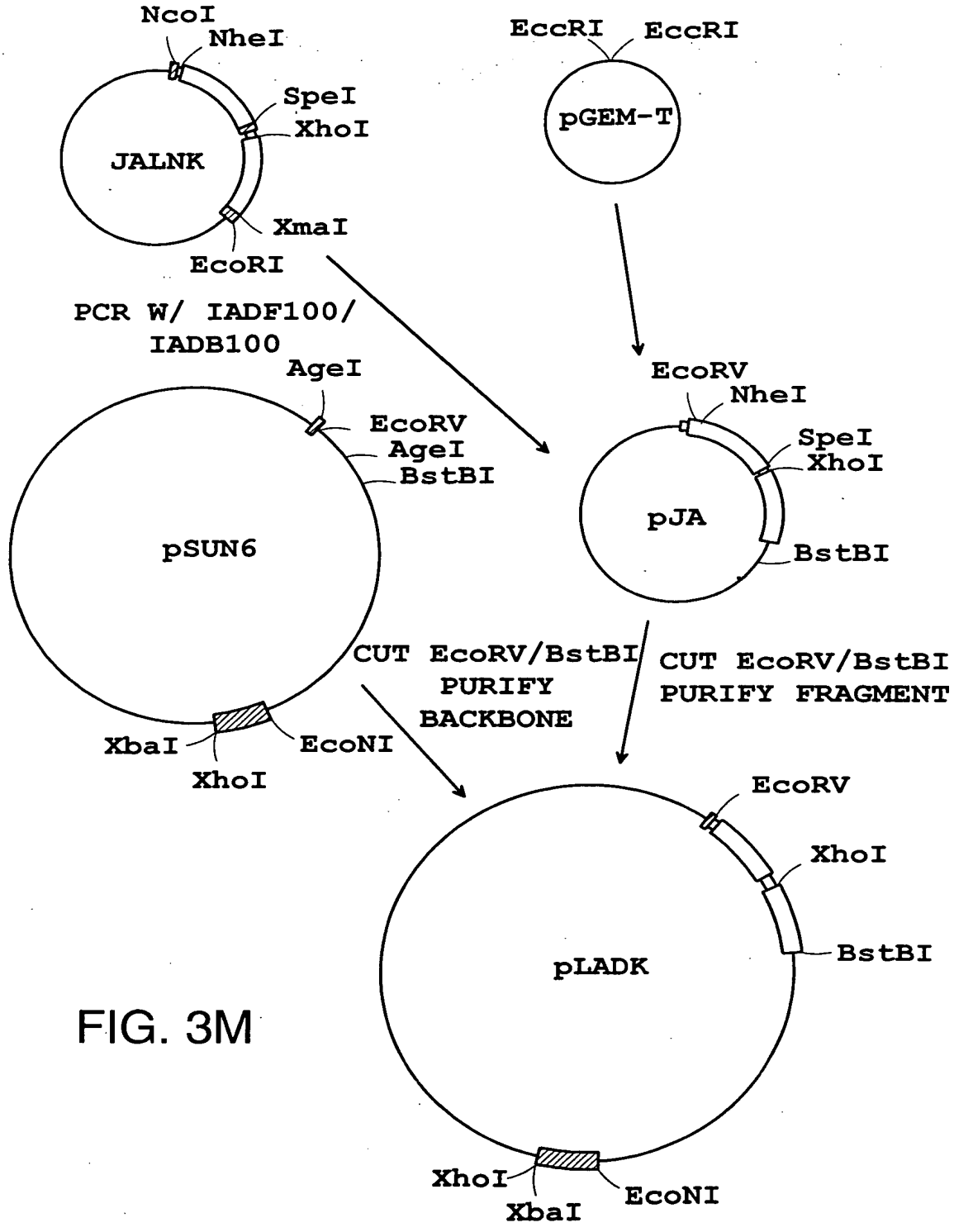


FIG. 3M

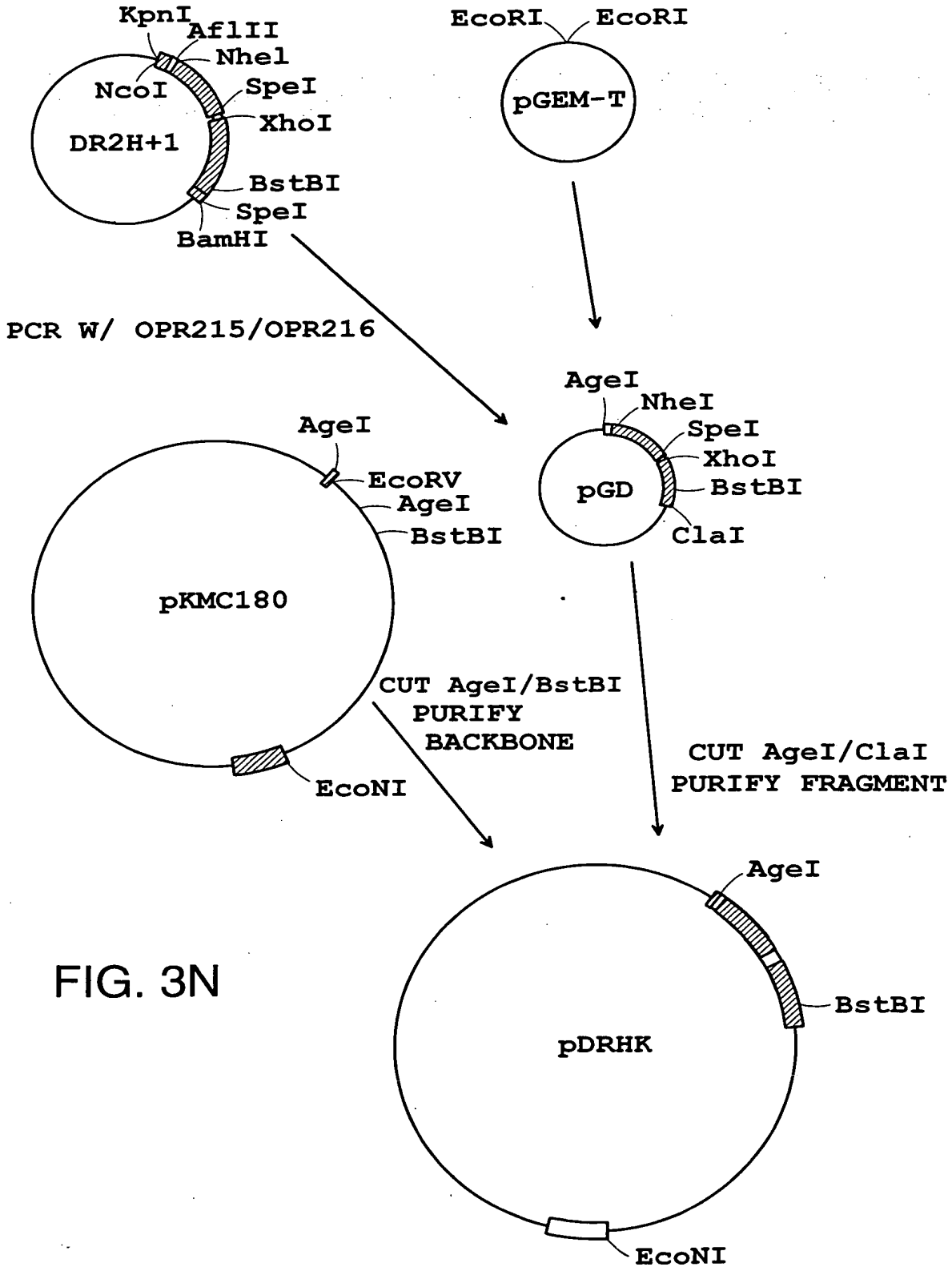


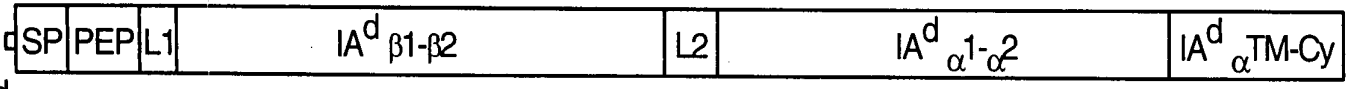
FIG. 3N

sc-1A^d/PEPTIDE FUSION

sc-1A^d/PEPTIDE-TAG FUSION

FIG. 4A

sc-1A^{d}TM/PEPTIDE FUSION



sc-1A^d/PEPTIDE-C_L FUSION

17/26

sc-DR2/PEPTIDE-TAG FUSION

sc-DR2-$_\beta$2/PEPTIDE FUSION

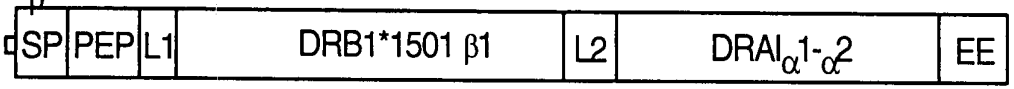


FIG. 4B

sc-DR2 MOD $_\beta$2/PEPTIDE FUSION

sc-DR2/PEPTIDE-C_L FUSION

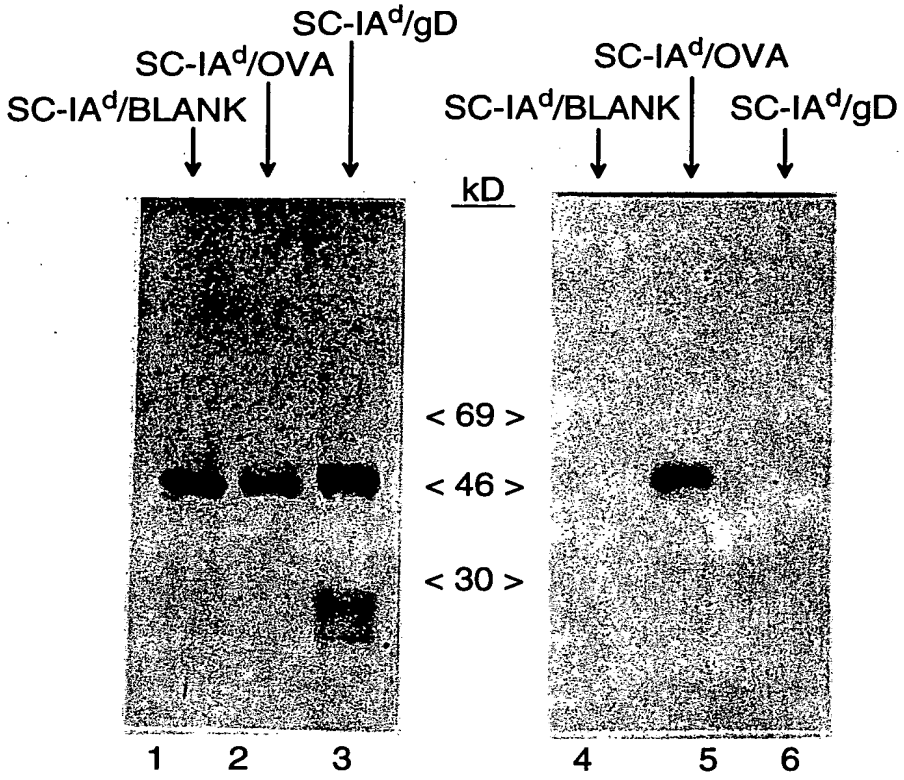


FIG. 5A

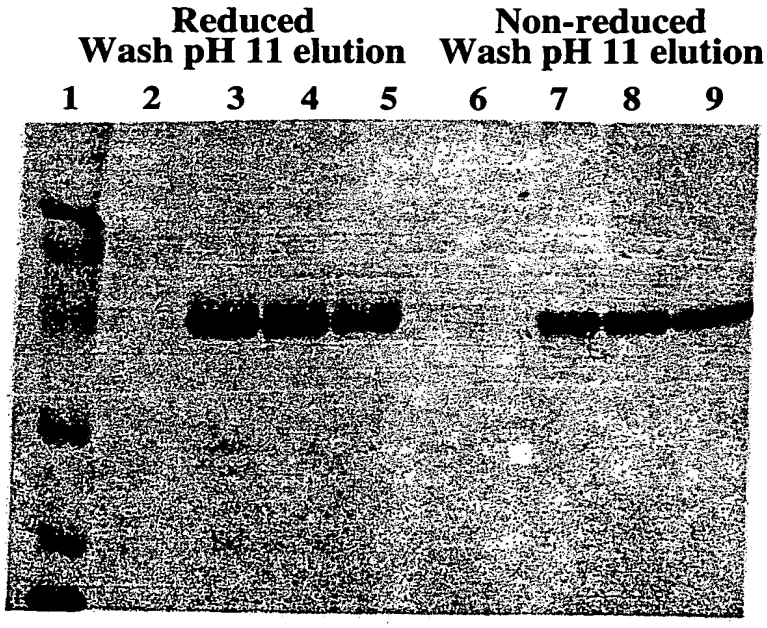


FIG. 5B

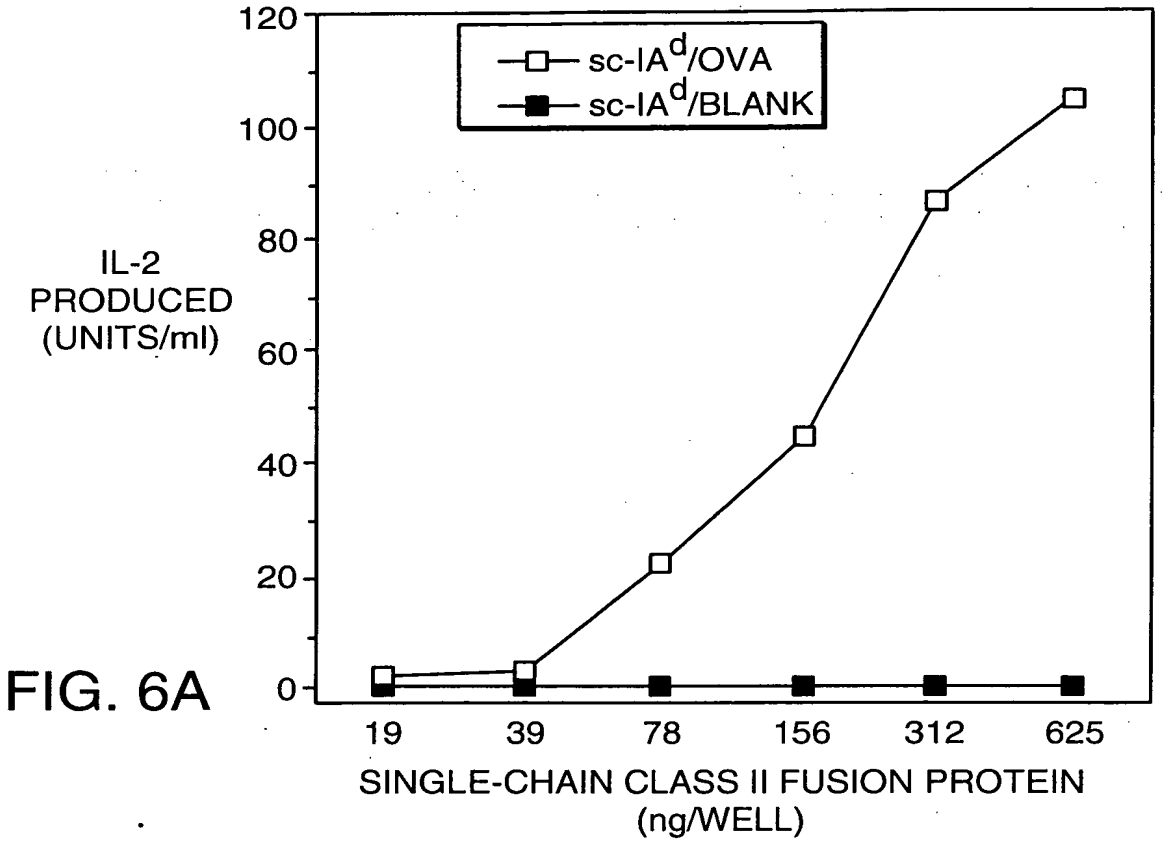


FIG. 6A

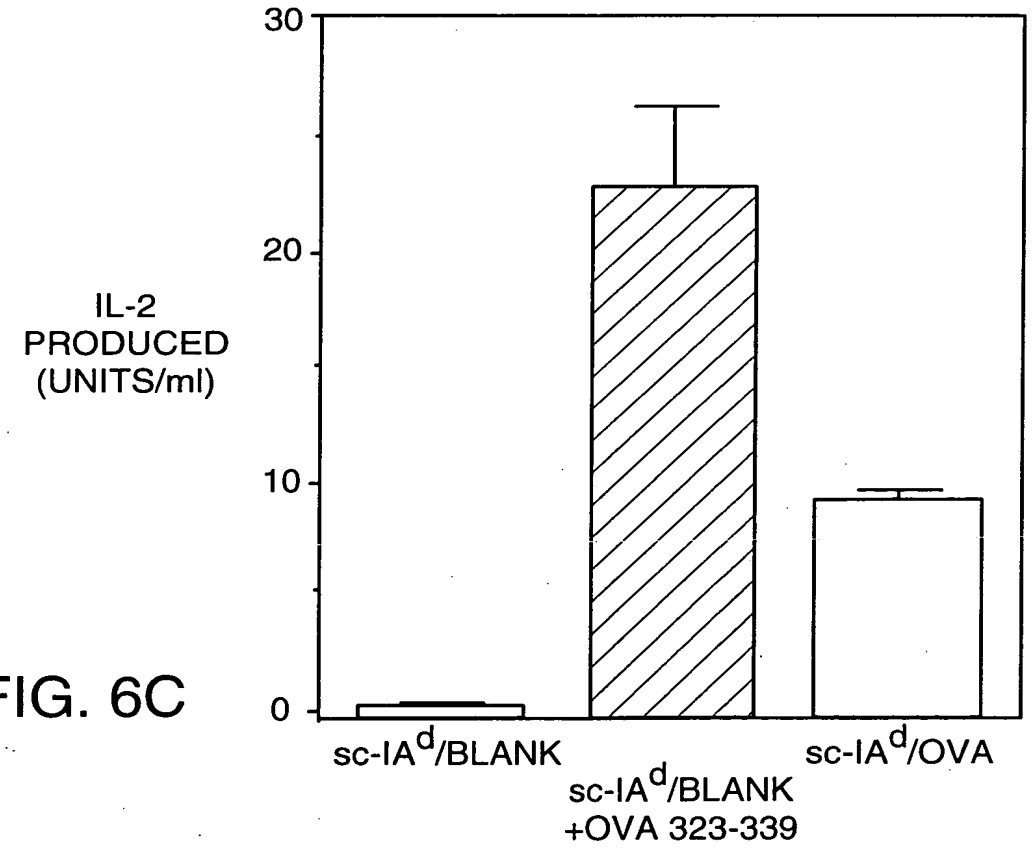


FIG. 6C

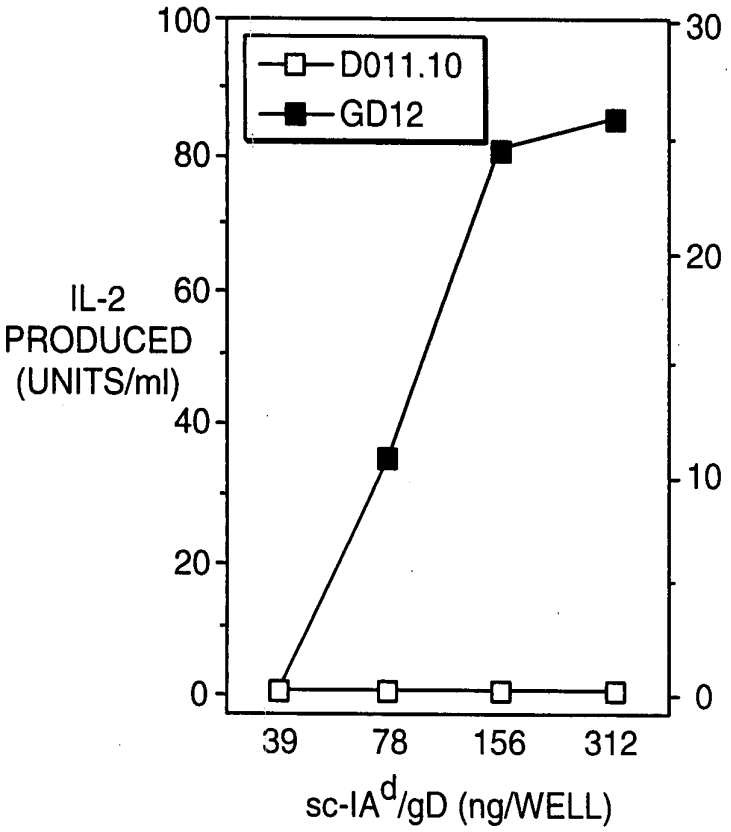


FIG. 6B-1

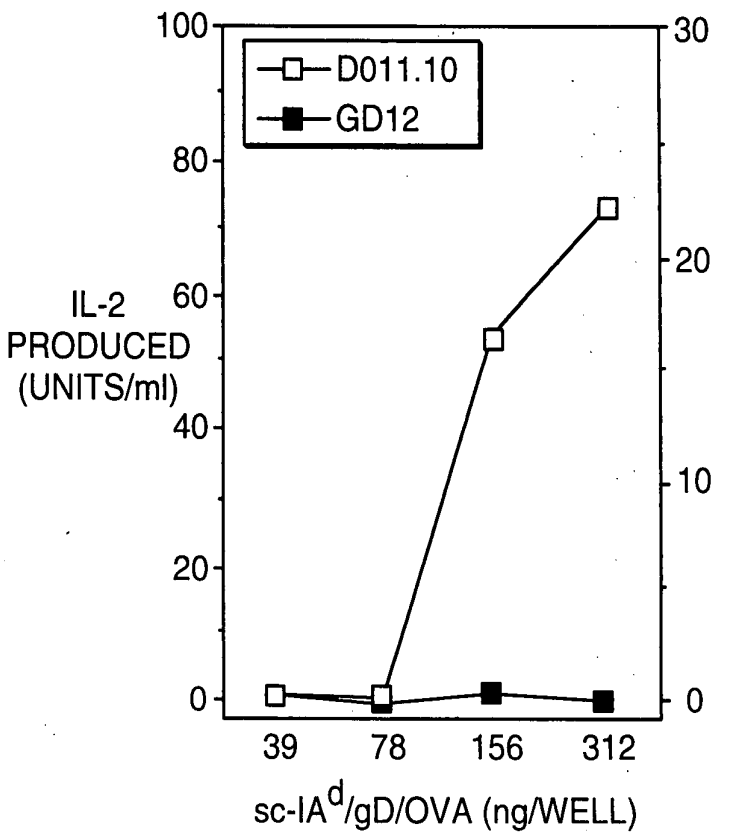


FIG. 6B-2

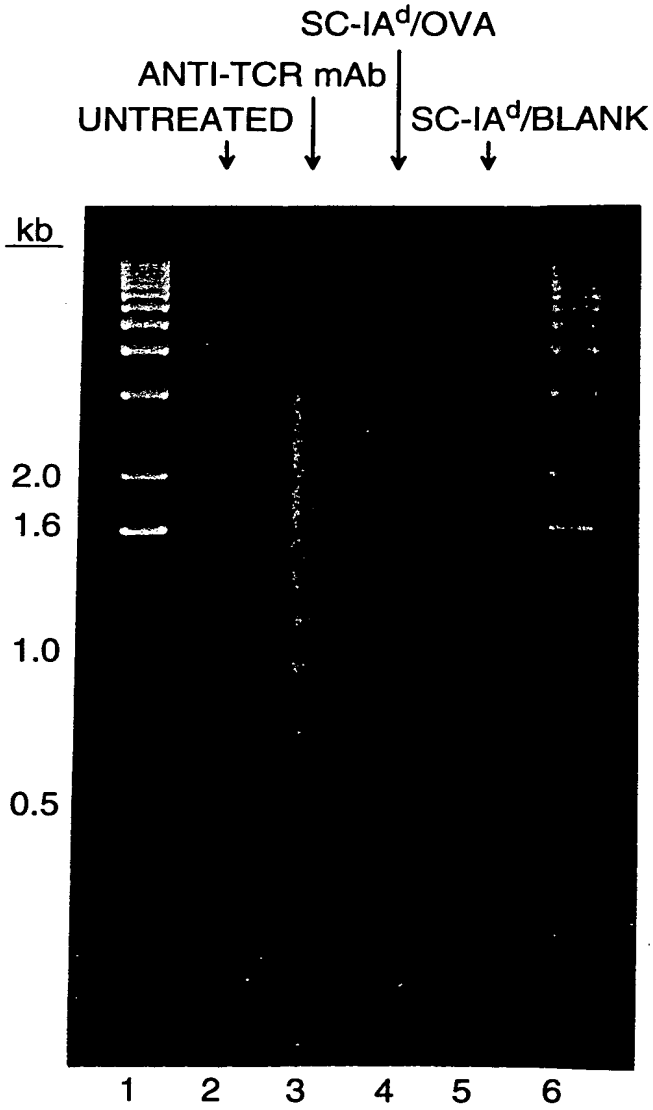


FIG. 7

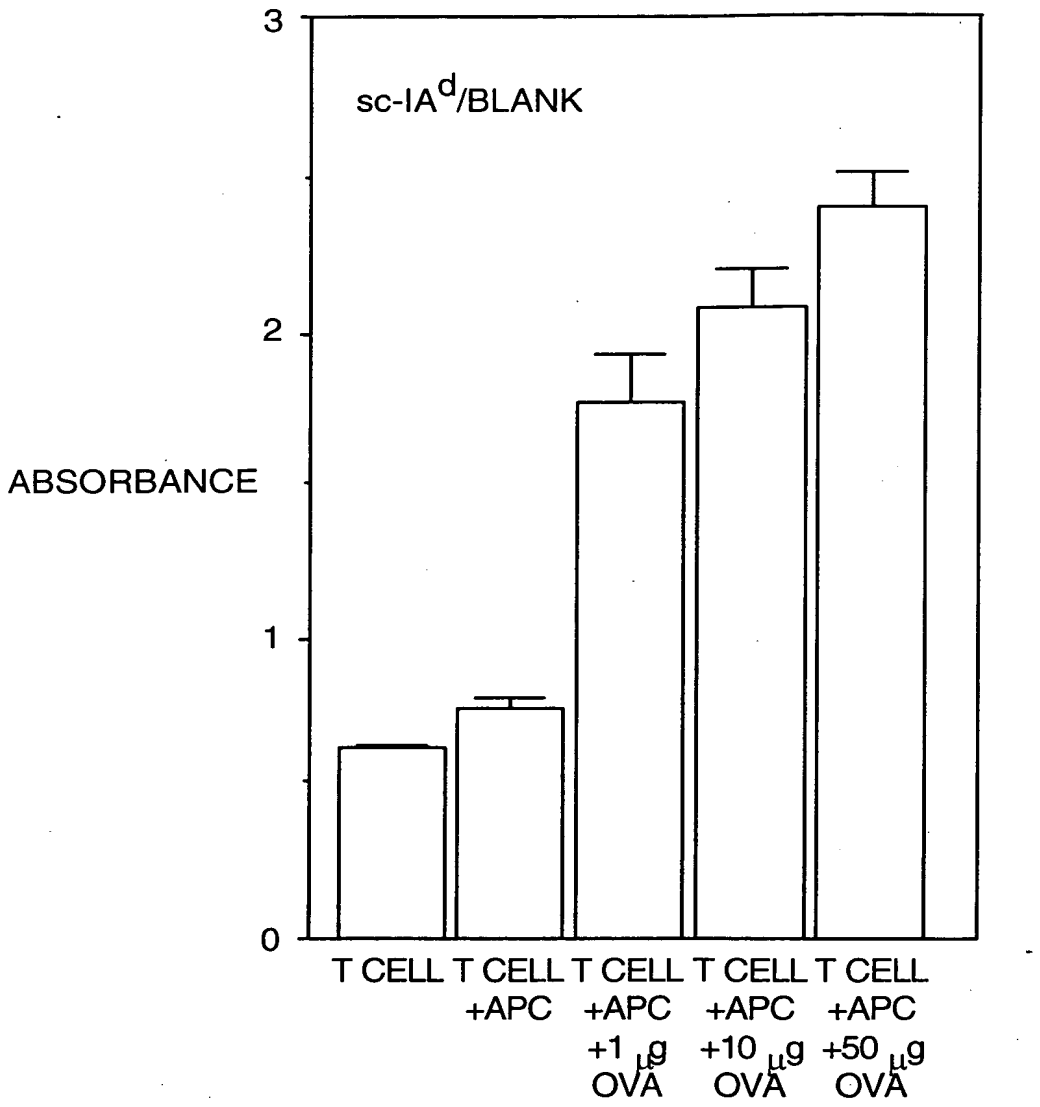


FIG. 8A

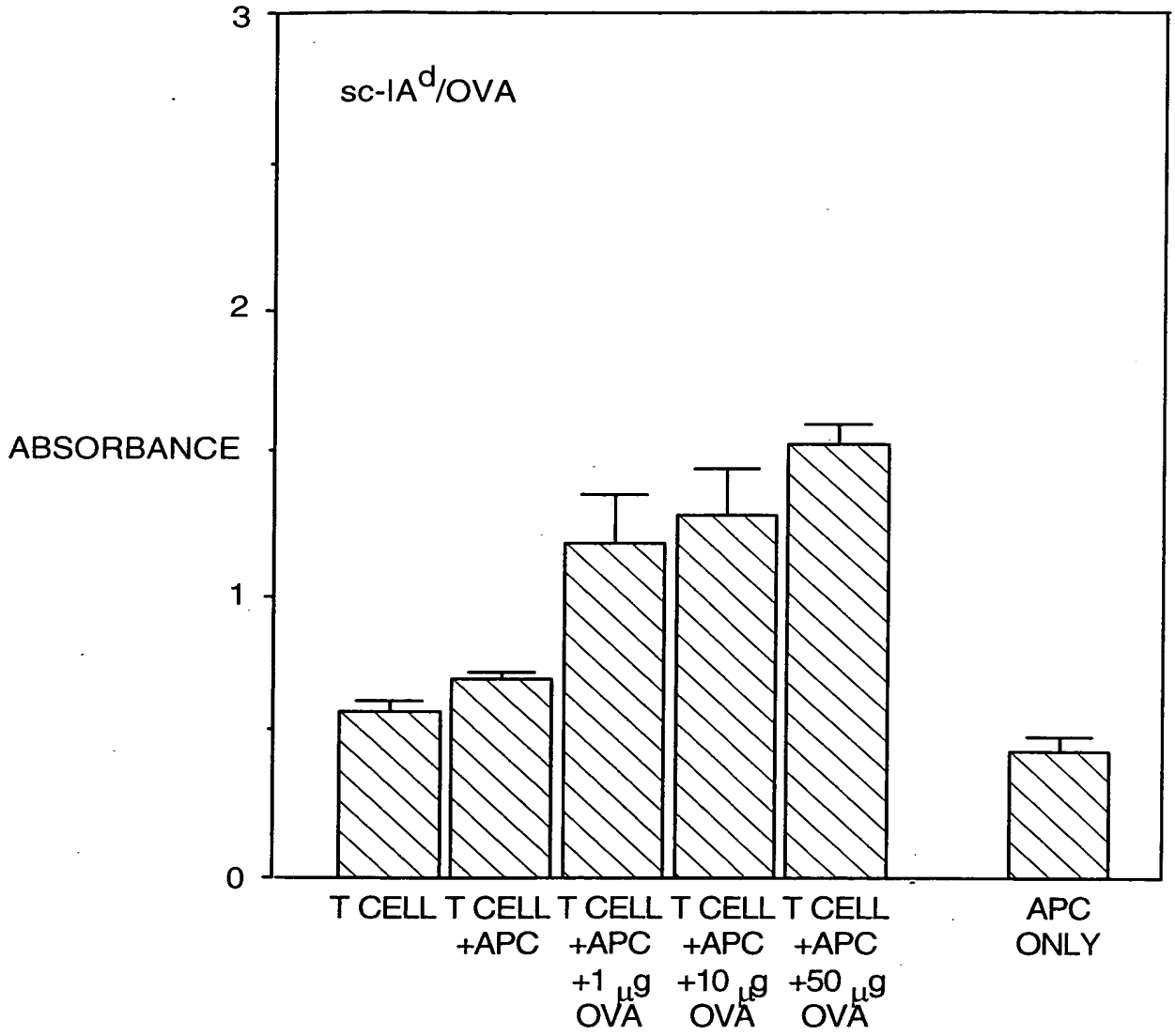


FIG. 8B

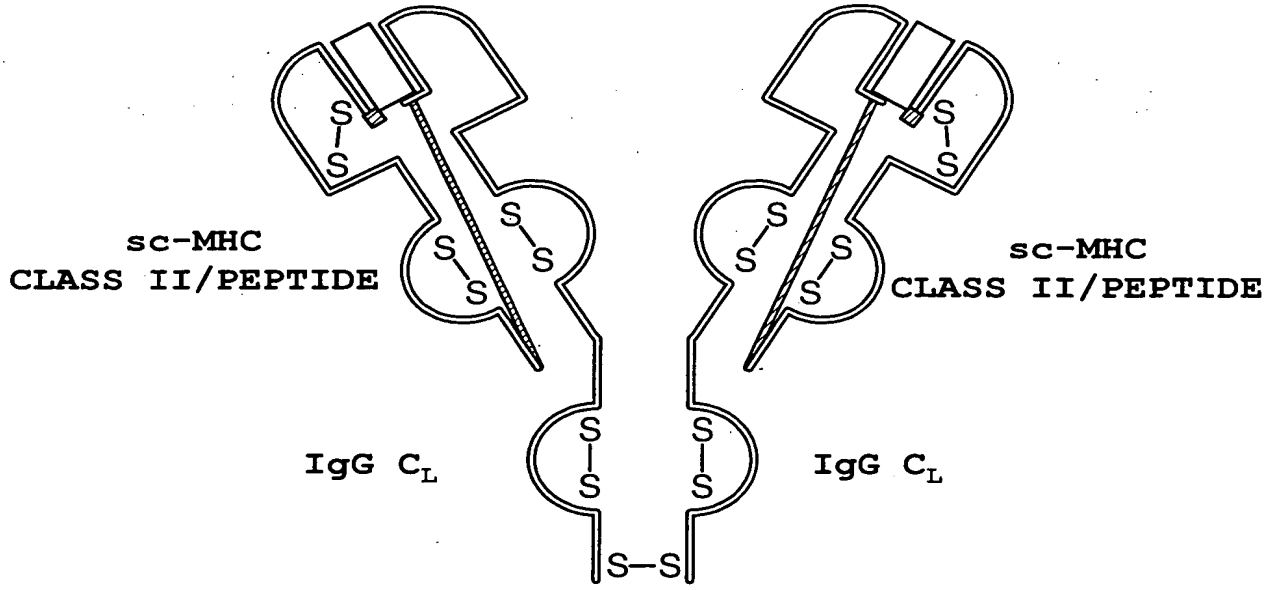


FIG. 9A

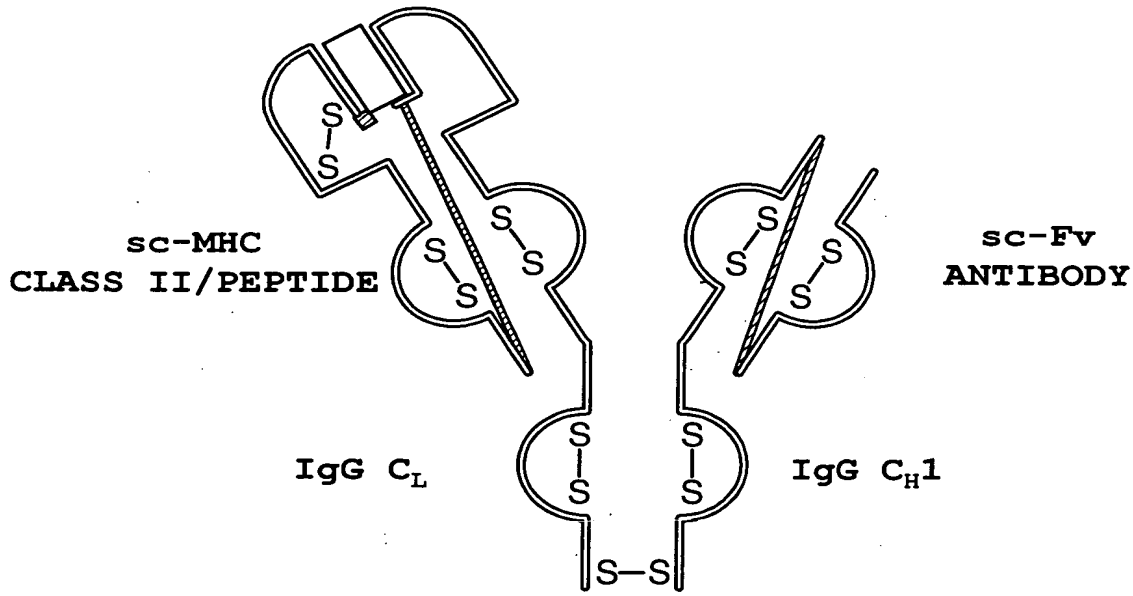


FIG. 9B

	SEQ No.
CCACCATG	1
OPR132 5'-CCCCCCAAGCTTCCCGGGCCACCATGGCTCTGCAGATCCCCAGC-3'	2
OPR133 5'-CCCCCCACTTAAGGTCCTTGGGCTGCTCAGCACC-3'	3
OPR102 5'-GGGGGGGCCATGGCCGGAAACTCCGAAAGGCATTTCG-3'	4
OPR104 5'-GCGGCGACTAGTCCACTCCACAGTGATGGGGC-3'	5
OPR100 5'-GGGGGGGCCATGGCCGAAGACGACATTGAGGCCGAC-3'	6
OPR101 5'-GCGCGACTAGTCCAGTGTTTCAGAACCGGCTC-3'.	7
IADF100 5'-GGGGGGGATATCTCTCAGGCTGTTCACGCTG-3'	8
IADB100 5'-GGGGGGTTCGAAAAGTGTACTTACGGGGGGCTGGAATCTCAGGTTC-3'	9
OPR145 5'-GGGGGGCTCGAGTATCAAAGAAGAACATGTGATCATC-3'	10
DR1A-B 5'-GCGGCGGGATCCGTTCTCTGTAGTCTCTGGGAGAGG-3'	11
OPR203000 5'-GATCCGAGGAAGAAGAGTACATGCCCATGGAACCCGGGTGAG-3'	12
OPR203001 5'-AATTCTCACCCGGGTTCCATCGGCATGTACTCTTCTTCCTCG-3'	13
DR2B-F 5'-CCCCCCCGCTAGCGGAGGGGGCGGAAGCGGCGGAGGGGGGGACA CCCGACCACGTTTCCTGTGGCAGCCTAAGAGG-3'	14
DR2B-B2 5'-CCCCCCCGAATTCCCCACTAGTCCATTCCACTGTGAGAGGGCTTGTC AC-3'	15
MB201806 5'-GGGGGGGCCATGGCCTACGACGAGAACCCCGTGGTG-3'	16
MB175959 5'-GGGGGGACTAGTTCGCCGCTGCACTGTGAAGC-3'	17
MB201807 5'-GGGGGGTATGCATACGACGAGAACCCCGTGGTG-3'	18
MB201808 5'-GGGGGGACTAGTTCCACTTCGAGGAACTGTTTCC-3'	19
MB201809 5'-CCTCCTGGTCTCCTCTGTGAGTGG-3'	20
MB201810 5'-CCACTCACAGAGGAGACCAGGAGG-3'	21
OPR 215 5'-CCC CCC ACC GGT TAC GAC AAC CCC GTG GTG-3'	22
OPR 216 CCC CCC ATC GAT AAG TGT ACT TAC GTG GGA GAG GGC TTG GAG CAT-3'	23

FIG. 10A

OVA 323-399 ISQAVHAAHAEINEAGR		26
Gd-246-261 APYSTLLPPELSETP		27
MBP (83-102) Y83 YDENPVVHFFKNIVTPRTPP		28
14 amino acid linker TSGGGGSGGGGSSS		29
EE TAG EEEEYMPMEPG		30
24 amino acid linker TSGGGGSGGGGSGGGGSGGGGSSS		31
MBP (S4-102) DENPVVHFFKNIVTPRTPP		32

FIG. 10B